

ELECTRODES COATED WITH TREATING AGENT AND USES THEREOF

Abstract of the Disclosure

An object of the invention is to provide a method for delivery of macromolecules into biological cells in the tissues of a patient and includes the steps of: (a) providing electrodes (16) in an electrode assembly (12), 5 wherein the electrodes have fixed electrode surfaces (42) which are coated with at least one static layer of electrode releasable molecules (44) to be delivered; (b) providing a waveform generator (15) for generating electric fields; (c) establishing electrically conductive pathways between the electrodes (16) and the waveform generator (15); (d) locating the electrodes (16) such that the biological cells are situated therebetween, and (g) 10 providing electric fields in the form of pulse waveforms from the waveform generator (15) to the electrodes (16), such that molecules in the at least one static layer of the electrode releasable molecules (44) on the electrodes (16) are delivered into the biological cells. The 15 electrode releasable molecules (44) can be either electric field separable molecules and/or solvent separable material. Another object of the invention is to provide an apparatus for carrying out the method of the invention. The static-coated electrode assembly (12) can be provided in a sterile package (24), from which the electrode assembly (12) is removed prior to use. The statically-coated electrode assembly (12) can be in a form of a 20 disposable assembly (12) which is removable and replaceable from an electrode assembly holder (13). 25